



## **"SEO vs. PPC – The Final Round"**

**A Research Study by Engine Ready, Inc. Examining the  
Role Traffic Source Plays in Visitor Purchase Behavior**

**Update I**

July 2009

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## I. Introduction

In January 2008, Engine Ready completed an intensive industry study aimed at determining the impact web traffic source has on the following metrics of ecommerce merchants:

- Average order value
- Conversion rate
- Bounce rate
- Value per visitor (sales revenue divided by visits)
- Average time spent on site
- Average number of page views per visit
- Average length of time spent on each page viewed

The web traffic sources measured were visitors arriving by:

- Clicking on a paid search ad
- Clicking on an organic search result
- Typing the URL into the address bar of the browser or arriving via a bookmark
- Being referred from another web site

The purpose of this study was threefold:

1. Gain an understanding of how visitors behave based on how they arrived at your site
2. Provide insights into customizing the visitor experience based on the visitor's traffic source
3. Offer insights on how to best leverage your online marketing budgets among the four main traffic sources: SEO, PPC, inbound linking, or branding.

## II. The Updated Study - Methodology

In July 2009, Engine Ready repeated the study following as closely as possible to the methodologies used in the January 2008 study. Whereas the original study included metrics from 27 randomly selected eCommerce companies over a 2 year period ending December 2007, this latest version measured 21 of the original 27 companies plus 5 new randomly selected companies. The data was gathered during the period July 1, 2008 through June 30, 2009.

Updated study data consisted of a total 20.8 million visits and 108 million page views. Since we were interested in assessing overall visitor behavior, we chose to not focus on any one industry and included both B2B and B2C firms in both the original and updated studies.

The characteristics we were most interested in evaluating consisted of 3 primary areas related to both ROI and brand awareness:

1. Likelihood to convert a customer
2. Amount of spend by the visitor
3. Engagement and visitor behavior



A large segment of online advertisers evaluate campaign success solely on the direct return on their investment. As such, we felt it was important to include both the likelihood of visitors to convert to buyers as well as their average order value.

Along with direct ROI values such as conversion rate, we also included engagement metrics because we feel that engaged consumers lead to increased brand awareness that ultimately, leads to increased sales. Longer average visits tend to imply that visitors became more involved with the company's site and products.

Due to the inherent difficulties in accurately measuring conversion attribution, this study ignores the impact of any instances where there are visits from other sources prior to the converting visit that actually played a role in the conversion. In the absence of any concrete industry data supporting otherwise, it is assumed that these instances would have approximately the same impact on all 4 sources measured.

## Definitions

Traffic arriving from Organic Listings – all visits where the referring URL included any search engine excluding visits from paid listings

Traffic arriving from Paid Listings – all visits from paid listings on search engines, contextual sites, and search partners

Traffic arriving from Direct Access/Bookmark – all visits originating from the visitor typing the URL into the browser or accessing a bookmark from their browser

Traffic arriving from Other Referrers – all visits from other web sites, emails and banners

Sales – gross sales revenues

Orders – number of orders received tied to visits. For example, if a customer ordered 5 products within 1 visit, that would be counted as 1 order

AOV (Average Order Value) – sales divided by orders

Bounce rate - the percentage of entries on each page of your web site that resulted in an exit from that page without getting any deeper into the site.

Visits – number of visitor sessions from unique and returning visitors

Conversion rate – number of orders divided by number of visits

Value per visit – sales revenue divided by visits

Average Time on site - average time visitors spent on the site

Page Views – the number of time web pages were viewed

Page Views per visit – page views divided by visits

Seconds per page – average time on site divided by page views per visit

**III. Results**

Upon completion of data compilation, we found that the aggregated sales dollar volume resulted in a distribution among the four traffic source categories as follows:

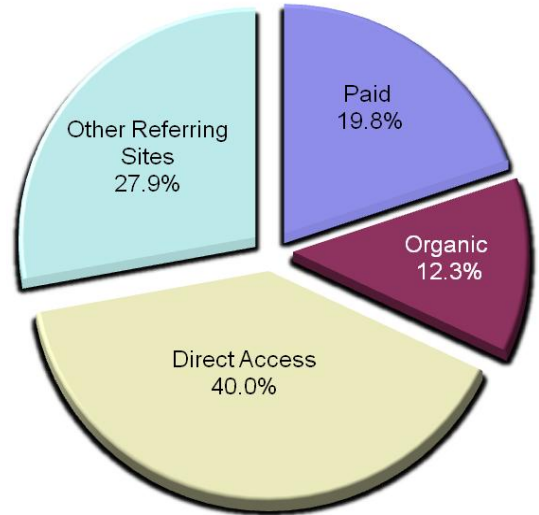
- Organic listings – 12%
- Paid listings – 20%
- Direct Access/Bookmarks – 40%
- Other referrers – 28%

Note that similar to our first study, the highest percentage of sales dollars (40%) was generated from visitors who arrived at the sites via direct access or bookmarks.

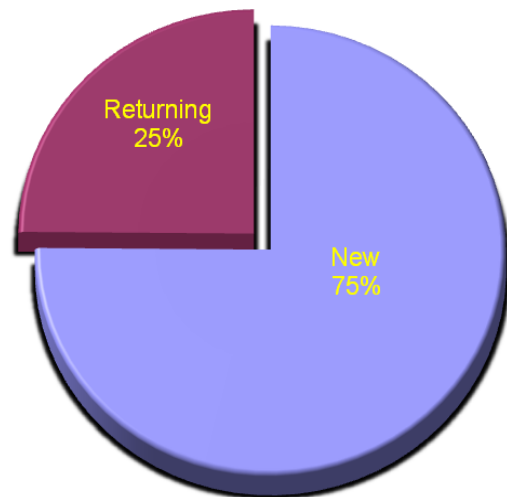
This could very likely be an indication of repeat visitors, despite our studying showing that only 25% of our visitors were repeat visitors.

We surmise that the 25% repeat visitor value would have been closer to the 40% level had visitors not deleted their cookies.

Sales Volume By Source of Traffic



New vs Returning Visitors



**A. ROI Metrics**

**1. Bounce rate**

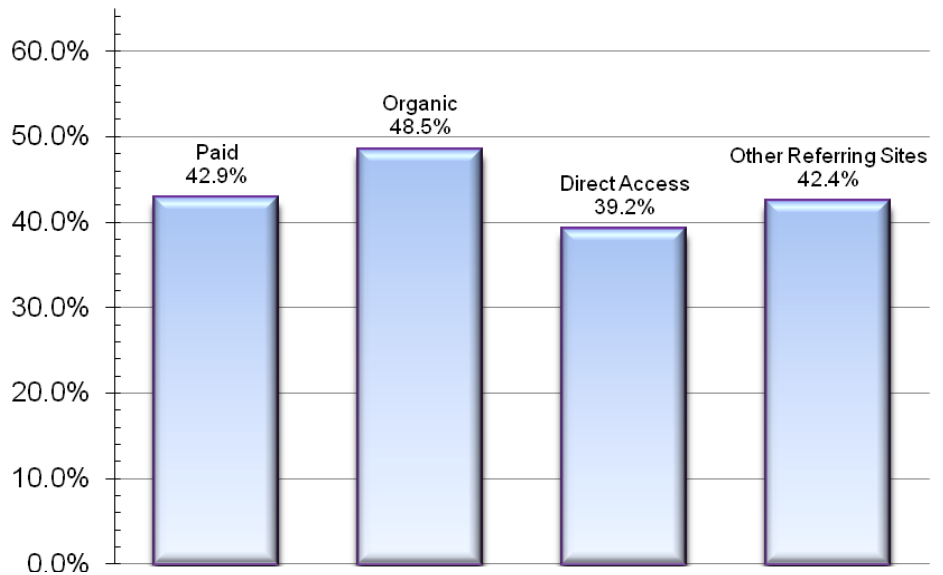
We found that the combined bounce rate from all traffic sources in our study was 43.9% with the 4 sources falling within a relatively narrow range of 9.3 percentage points. Leading the pack with the lowest bounce

rate was direct access/bookmark generated traffic at 39.2%.

As one might expect, a user who either types in the URL or arrives at the site via a bookmark is highly motivated to engage with that site and less likely to bounce off of the destination.

At the other extreme, visitors who arrived from organic listings bounced at the highest rate of 48.5%. Although the organic bounce rate increased less than 4 percentage points from the first study, significant improvements in the other 3 categories' bounce rates, resulted in organic finishing last in this metric.

**Bounce Rate By Source of Traffic**



<b>Bounce Rates</b>	<b>Updated Study</b>	<b>Original Study</b>	<b>% Change</b>
Paid	42.9%	44.0%	-2.5%
Organic	48.5%	44.8%	8.3%
Direct Access/Bookmark	39.2%	42.3%	-7.3%
Other Referral	42.4%	48.7%	-12.9%
Total	43.9%	44.5%	-1.3%

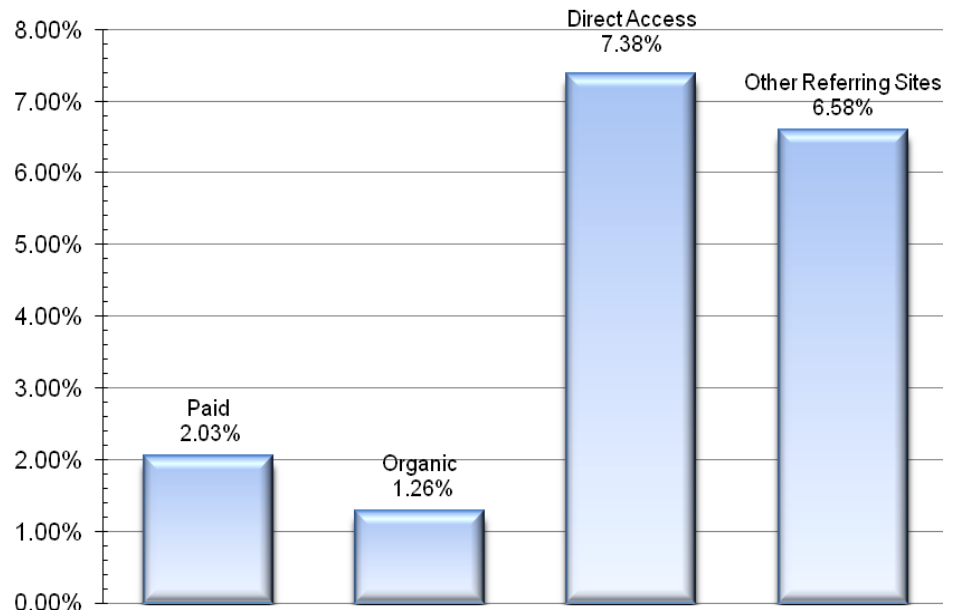
## 2. Conversion rate

Overall conversion rate for the studied companies came in at a much improved 3.6%, an 89.5% jump from our previous study, registering improvements from all traffic sources. The results ranged quite widely from a low of 1.3% for organic traffic to a high of 7.4% for direct access/bookmark traffic.

As was the case with bounce rates, again we're seeing the best performing conversion rate from direct access and bookmark traffic.

However, the incremental advantage of attracting these repeat visitors was much greater than the difference in bounce rates.

Conversion Rates



In fact, these visitors were over 5 times more likely to convert than traffic received from organic sources.

Similar to our observations regarding bounce rate, paid traffic visitors converted better than organic visitors. This could be a reflection of a more tailored landing page for the paid traffic visitors, or a greater intent to purchase when a web user clicks on a paid ad versus an organic listing.

Conversion Rates	Updated Study	Original Study	% Change
Paid	2.0%	1.4%	42.9%
Organic	1.3%	1.2%	8.3%
Direct Access/Bookmark	7.4%	3.3%	124.2%
Other Referral	6.6%	3.0%	120.0%
Total	3.6%	1.9%	89.5%

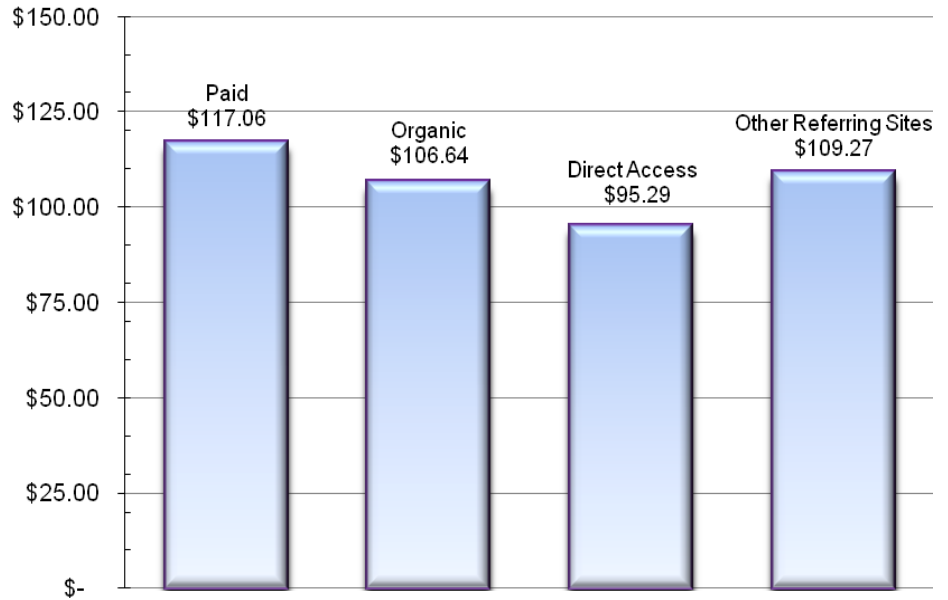
### 3. Average order value

Our study produced an aggregate average order value of \$104.21, down 31.7% from our previous study. Our data generated a range of only \$24 between the best performing source of other referrals, \$109.27, and the lowest average order value of \$95.29 from direct access.

Unlike the original study, the highest average order values came from visitors who arrive on the site from a paid search ad.

Following a similar outcome from our original study, the results show that when a visitor clicks on a paid ad versus an organic listing, they are not only more likely to convert at a higher rate, but also likely to spend roughly 10% more.

Average Order Value



Average Order Value	Updated Study	Original Study	% Change
Paid	\$117.06	\$138.04	-15.2%
Organic	\$106.64	\$117.09	-8.9%
Direct Access/Bookmark	\$95.29	\$170.32	-44.1%
Other Referral	\$109.27	\$168.45	-35.1%
Total	\$104.21	\$152.53	-31.7%

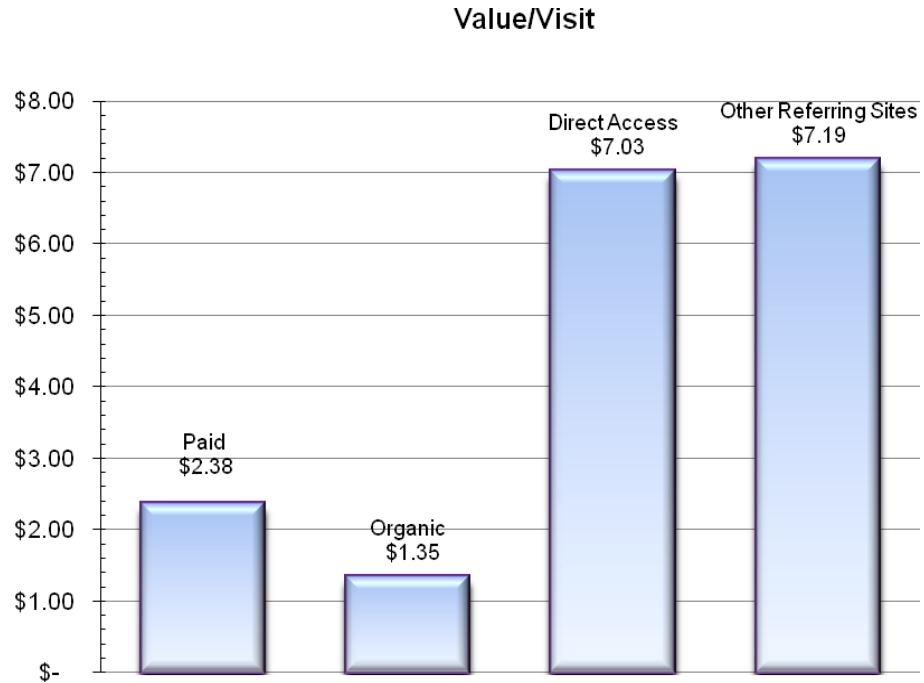
4. Average value per visit

The true value of an average visitor is computed as value per visit (sales revenue divided by number of visits).

The average value per visit for all traffic sources in our study was \$3.70, an increase of 25% over our previous study. The disparity between the highest and lowest results was the greatest of any of our metrics studied.

Interestingly, other referring sites generated the best

value per visit of \$7.19. That result was over 5 times greater than that of organic traffic, which had the lowest value per visitor of \$1.35.



The second most valuable visitor at \$7.03 was one that arrived from a bookmark or direct access. Assuming that direct access/bookmark traffic are repeat visitors, we can conclude that it is worth over 5 times as much to get a repeat visitor to your site compared to one who finds your site via an organic listing. We witnessed a large drop-off in value per visit between direct access/bookmark and the next most valuable source, paid traffic, which measured an average value per visitor of \$2.38.

A paid traffic visitor was worth 76% more than a visitor from an organic listing. Obviously there are varying amounts of marketing costs involved in optimizing a site for organic listing versus click charges incurred from a pay per click search engine.

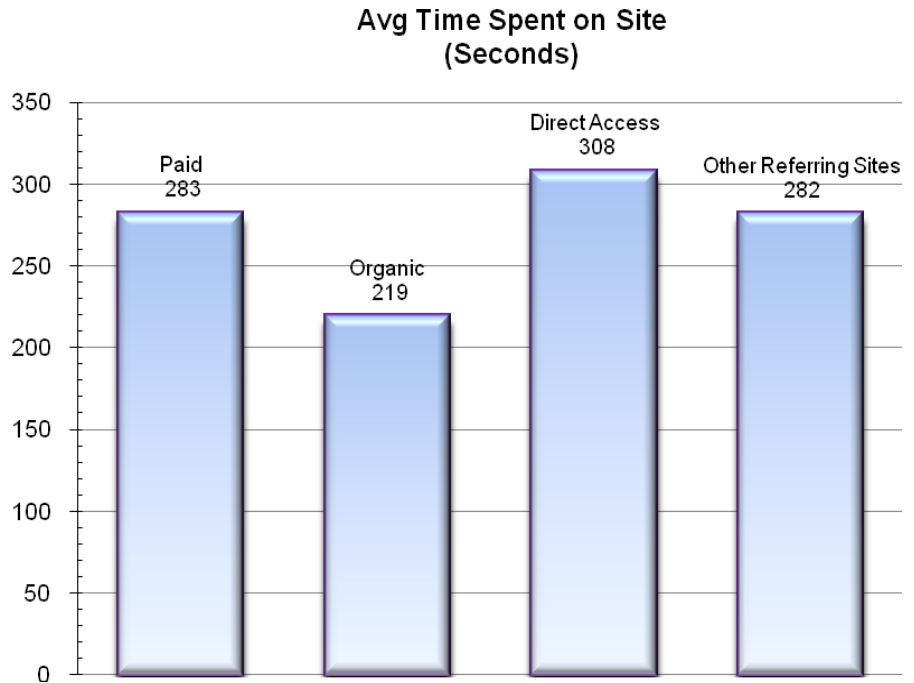
Average Value Per Visit	Updated Study	Original Study	% Change
Paid	\$2.38	\$1.91	24.6%
Organic	\$1.35	\$1.35	0.0%
Direct Access/Bookmark	\$7.03	\$5.69	23.6%
Other Referral	\$7.19	\$5.01	43.5%
Total	\$3.70	\$2.96	25.0%

**B. Engagement Metrics**

1. Average time spent on site

The overall average time spent on site based on traffic source increased 5.8% over our previous study, with a relatively large range between the shortest and the longest readings. In fact, the source producing the most “sticky” traffic (direct access/bookmark) produced average length of stays almost 50% longer than the lowest performing source (organic listings) in this category.

Whereas traffic from other referring sites converted three times as frequently as paid traffic, those visitors did not spend, on average, any more time on the site per visit.



Compared to our previous study, all sources of visitors spent more time on an average visit except direct access/bookmark visitors whose average visit time fell 1.3% .

Consistent with our other categories measured, organic traffic performed the lowest of all sources registering an average time spent on site of 219 seconds.

Average Time on Site	Updated Study	Original Study	% Change
Paid	283 seconds	259 seconds	9.3%
Organic	219 seconds	214 seconds	2.3%
Direct Access/Bookmark	308 seconds	312 seconds	-1.3%
Other Referral	282 seconds	246 seconds	14.6%
Total	273 seconds	258 seconds	5.8%

2. Average number of page views per visit

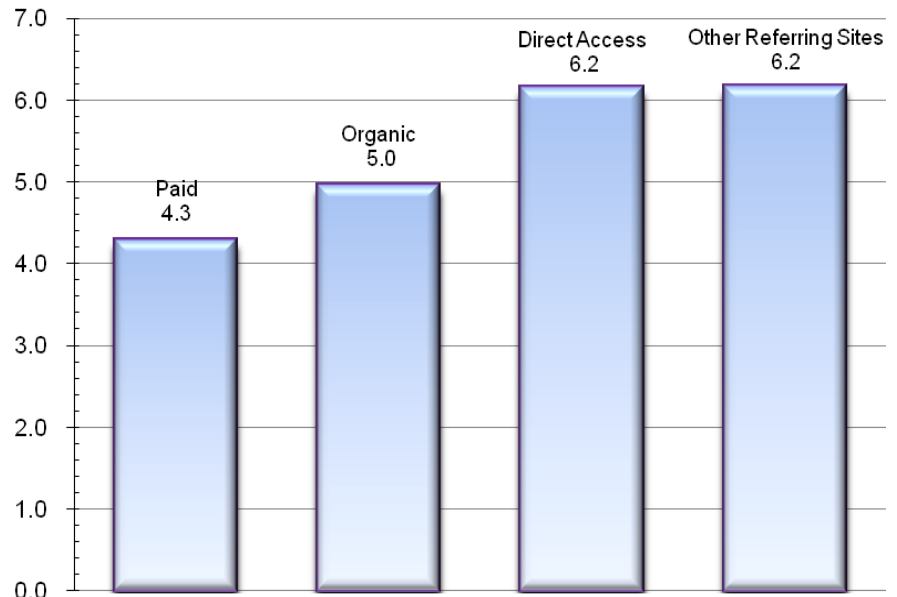
If marketers are interested in getting their visitors to navigate more pages, then our data shows that they've been successful since our previous study was conducted. Average number of page views per visit increased from our previous study in all 4 traffic sources, with an average total increase of 15.6%.

Average number of page views based on traffic source ranged from a high of 6.2 for direct access/bookmark and other referrers, to a low of 4.3 pages for traffic arriving from a paid ad.

Along with average order value, the average number of page views/visit was the only other metric where organic traffic did not register the lowest value.

Visitors from paid traffic sources viewed the fewest pages per visit (4.3) likely due to the use of optimized landing pages by marketers in an attempt to prompt a quick action from the visitor within the fewest number of page views.

Average Page Views per Visit



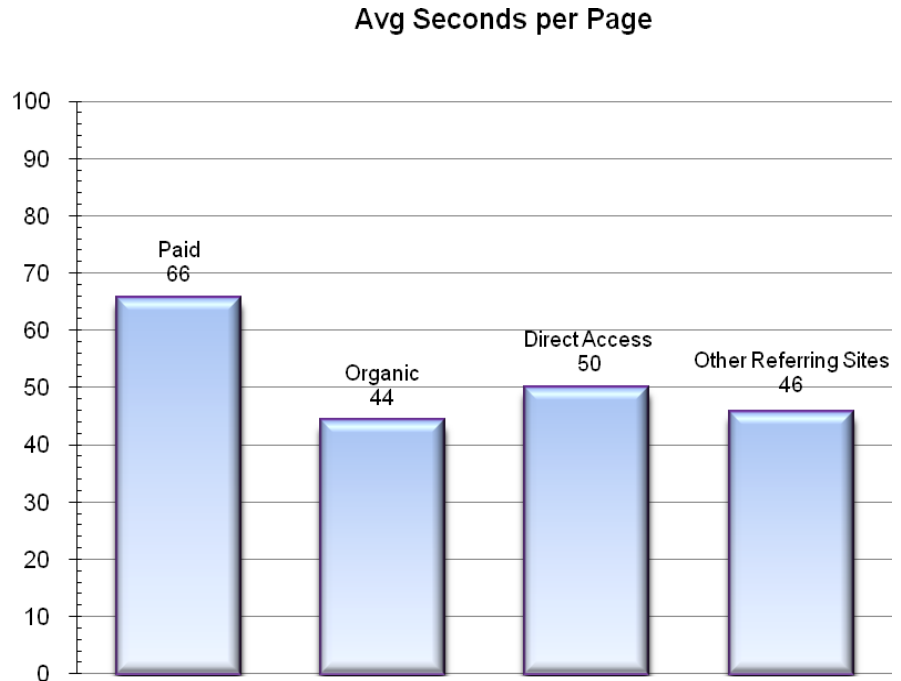
Average # Page Views/Visit	Updated Study	Original Study	% Change
Paid	4.3	3.8	13.2%
Organic	5.0	4.9	2.0%
Direct Access/Bookmark	6.2	5.5	12.7%
Other Referral	6.2	4.2	47.6%
Total	5.2	4.5	15.6%

### 3. Average time spent on an individual page

It's interesting to note that while visitors navigated an average 15.6% more web pages than measured in our original study, the average time spent on an individual page dropped approximately 9%. Rather than a sign of visitor

impatience, this may be an indicator that web marketers are doing a better job of presenting information on their pages in a more easily readable format.

The largest difference between time spent on a page was between paid search visitors (66 seconds) and visitors from organic listings (44 seconds). A visitor from a paid ad stayed on a page an average 50% longer than a visitor from an organic listing.



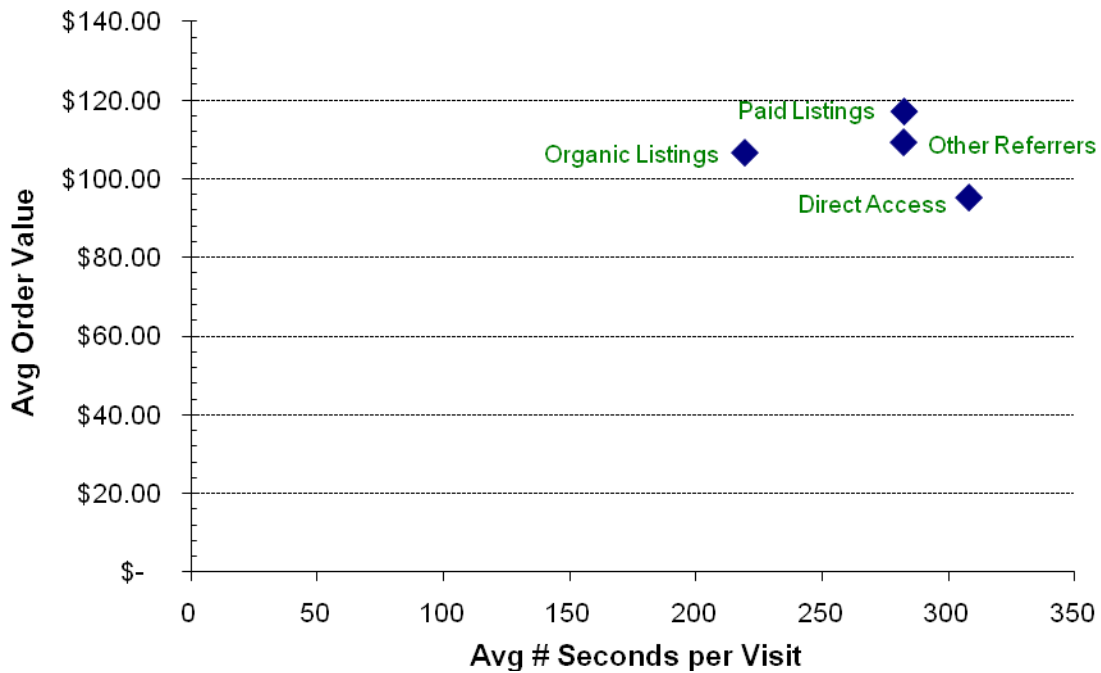
As noted in our previous study, those paid search landing pages are perhaps placing a stronger emphasis on persuading the visitor to perform an action, which may cause the visitor to spend more time on the page in a decision making mode.

Average Seconds per Page	Updated Study	Original Study	% Change
Paid	66	68	-2.9%
Organic	44	44	0.0%
Direct Access/Bookmark	50	57	-12.3%
Other Referral	46	58	-20.7%
Total	53	58	-8.6%

**C. Correlation Metrics** – The next series of graphs explore possible relationships between ROI metrics and the engagement metrics based on traffic source of visitor. Note that the conclusions stated in this section refer only to the relationships among these metrics as grouped by our 4 traffic sources, and are not necessarily suggestive of overall relationships.

1. Time spent on site

a. Comparison between average time spent on site and average order value

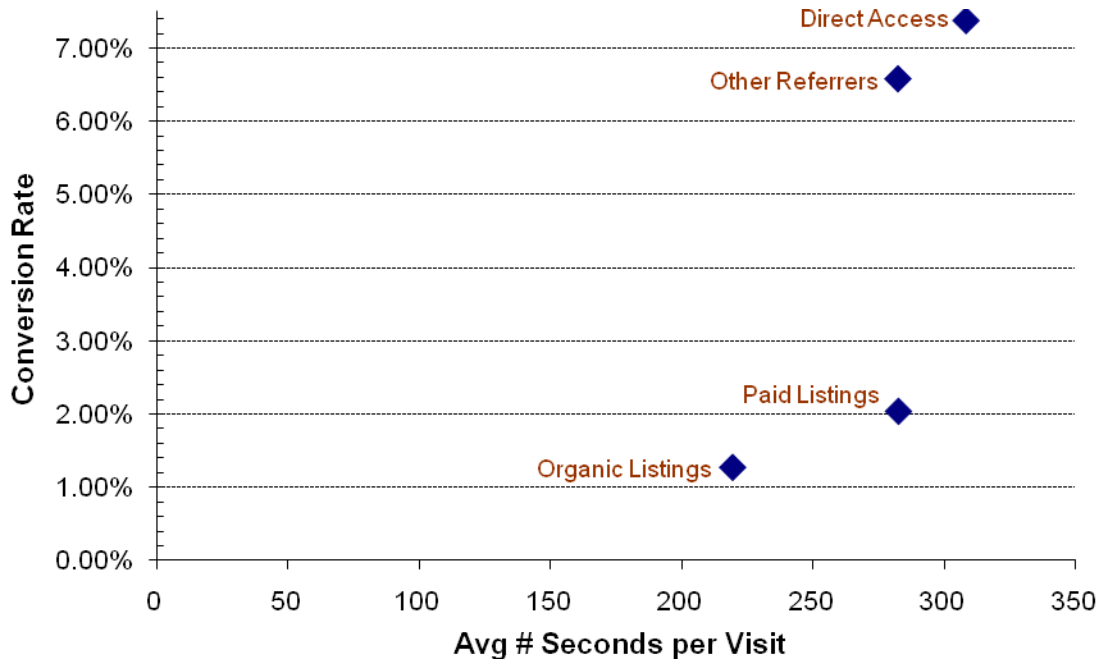


**Is there a positive correlation between the amount of time spent on a site and the average order value?**

We found there was not a strong correlation, positive or negative, when segregated by source of traffic. In fact, the source with the longest average visit, direct access/bookmark, registered the lowest average order value.

Traffic that generated the highest average order value, paid listings, did stay on the site the 2<sup>nd</sup> longest average length of all sources.

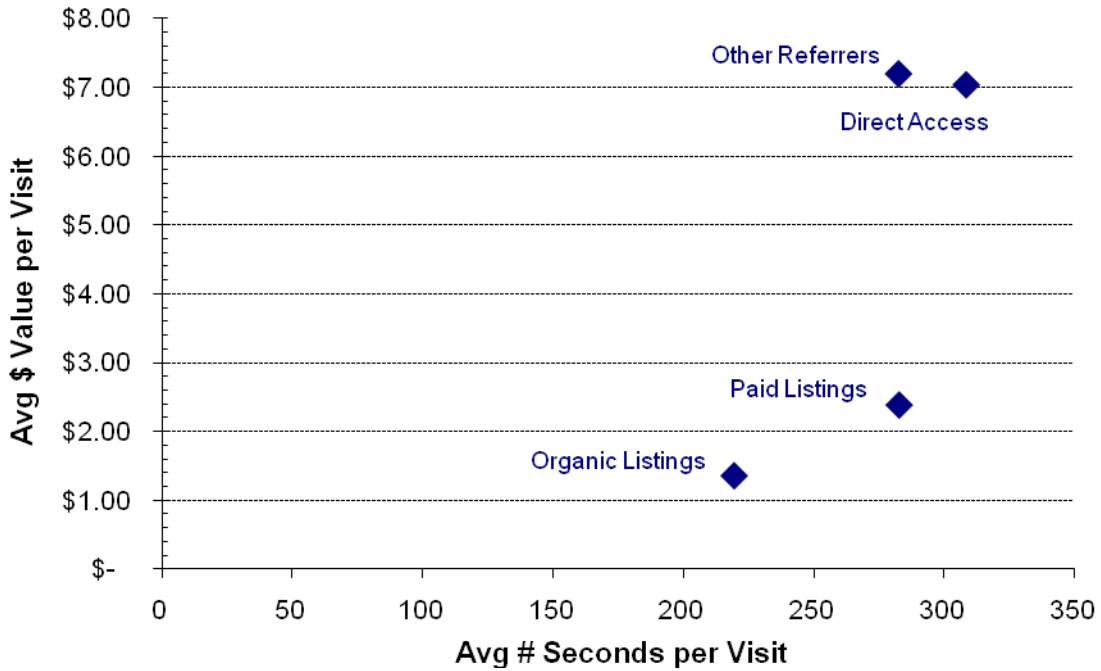
b. Comparison between average time spent on site and conversion rate



**Is there a correlation between the length of time spent on the site and the conversion rate?**

When segmenting visitors by traffic source, we found a definite positive relationship, where the longer visit length sources of traffic generated the highest conversion rates. Here, direct access/bookmark visitors stayed on the site the longest and also converted most frequently, while visitors from organic rankings had the shortest site visits and lowest conversion rates.

c. Comparison between average time spent on site and average value per visitor

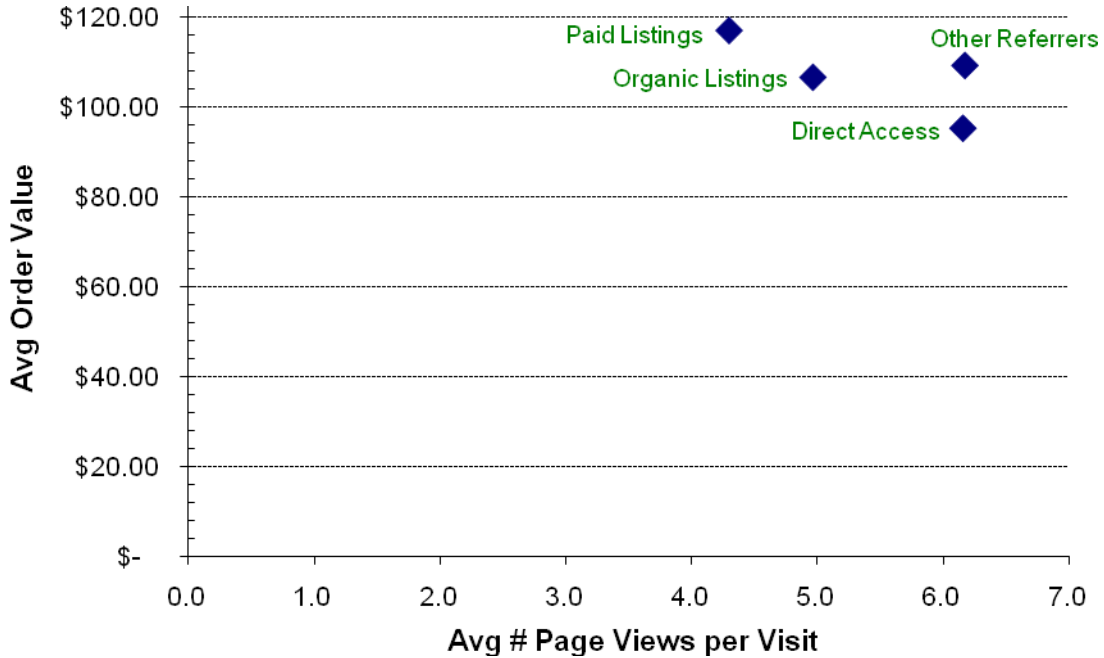


**Is there a correlation between the length of time spent on the site and the average value per visitor?**

We seemed to find a general positive relationship between average length of visit and average value per visitor when segmenting our data by traffic source. These results were influenced by the strong positive correlation between average length of visit and conversion rate, combined with the lack of correlation between average length of visit and average order value.

2. Page Views

- a. Comparison between average number of page views per visit and average order value

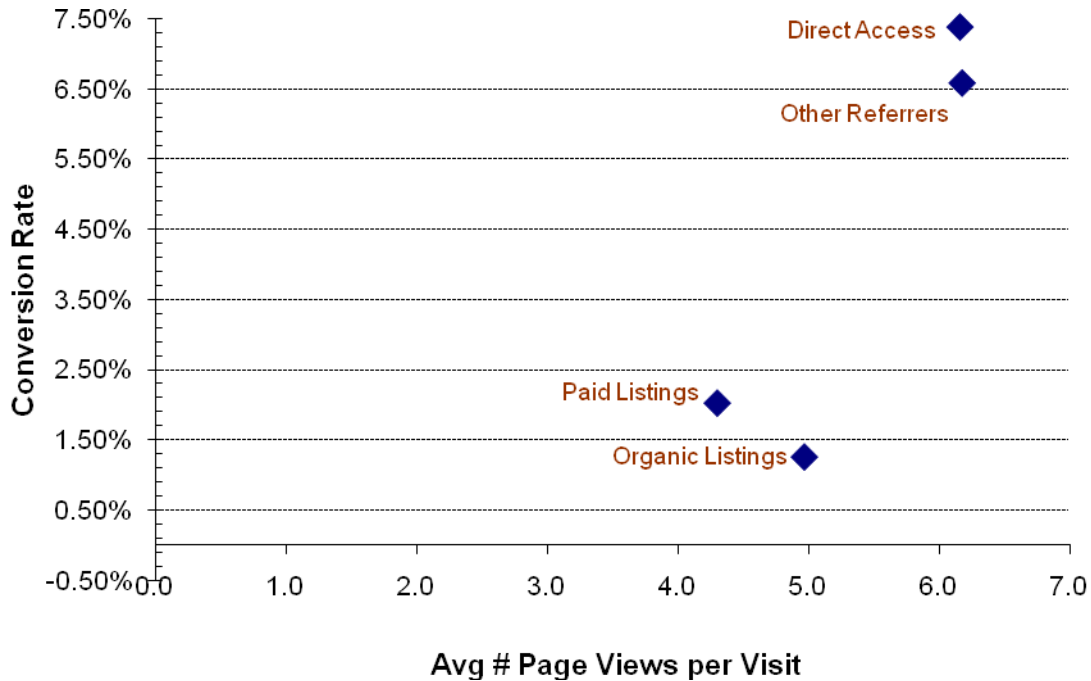


**Is there a correlation between the number of page views per visit and the average order value?**

When segmenting visitors by traffic source, we found a rather unexpected, mostly negative relationship in this comparison. In other words, visitors from traffic sources that generated fewer average number of page views, actually generated higher average order values.

Visitors from paid listings viewed the least amount of pages/visit (4.3), yet yielded the highest average order value of \$117.06. Direct access/bookmark viewed the 2<sup>nd</sup> most amount of pages/visit (6.2), yet brought in the lowest average order value of \$95.29.

b. Comparison between average number of page views per visit and conversion rate

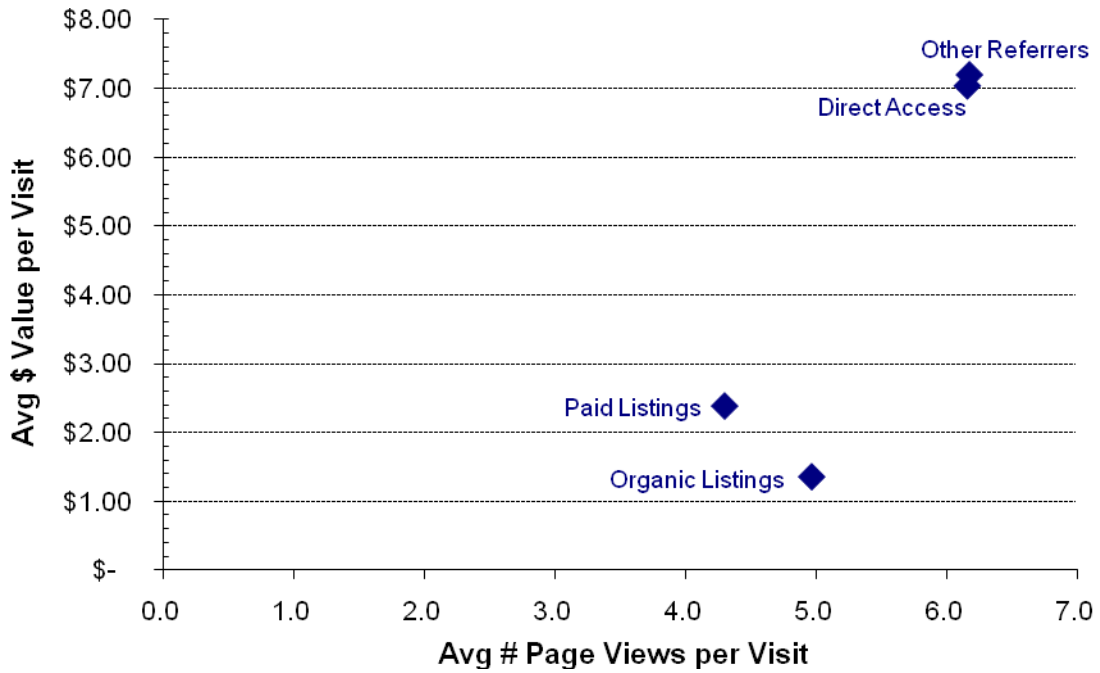


**Is there a correlation between the number of page views per visit and the conversion rate?**

Our data tended to display a general positive relationship between average number of page views/visit and the average conversion rate when segmenting our data by traffic source.

The only exception was visitors from organic listings that although viewed the 2<sup>nd</sup> lowest average page views/visit (5.0), but registered the lowest average conversion rate of 1.3%.

c. Comparison between average number of page views per visit and average value per visitor



**Is there a correlation between the number of page views per visit and the average value per visitor?**

When segmenting visitors by traffic source, we found a slightly positive relationship, where the higher page view sources of traffic generated higher average values per visit. The exception to this correlation is visitors from organic listings that although generated the lowest average value per visit of \$1.35, viewed the 2<sup>nd</sup> fewest number of pages (5).

Below is a summary table of correlations found by examining our data based on traffic source of visitors. A “positive” note means that, in general, an increase in the measure of the engagement metric led to an increase in the ROI metric.

**Engagement Metric**

**ROI Metric**

	Average Length of Visit	Average Number of Page Views
Average order value	None	Moderate Negative
Conversion Rate	Strong Positive	Moderate Positive
Value/visitor	Moderate Positive	Slight Positive

#### 4. Conclusions and recommendations

##### **The Most Productive Visitor**

Consistent with our previous study from 18 months ago, a common thread throughout all of our research was that visitors arriving via direct access or a bookmark stay longer, view more pages, are more likely to purchase and more likely to spend a higher dollar amount than visitors from other sources. Since the only way a visitor could arrive via a bookmark is from a previous visit to your site, likely many of the visitors from the direct access/bookmark source were probably familiar with the company's product or service offerings.

##### **The Value of Inbound links beyond SEO**

Inbound links to a site from other domains are both beneficial for SEO as well as driving additional quality traffic. And we found that visitors arriving from other domains and emails took top honors for the highest value per visitor at \$7.19, beating out last studies victor, direct access/bookmark by \$0.16.

And following previous study results, visitors from other referrers had the second highest conversion rate (6.6%) and average order value (\$109.27).

##### **SEO versus PPC**

Ever since the pay per click model became a channel for marketers, there has been an ongoing debate whether an investment in search engine optimization generates a higher ROI than paying for clicks using a PPC advertising model.

On an individual basis, there's a multitude of factors that determine how well your visitors will convert when arriving from a search engine. Looking at the big picture across our entire sample size, though, did show that visitors from PPC ads outperformed those from organic listings in every category except average number of page views per visit. This was consistent with our study results from 2007. Overall, we found that the average sales dollar value per visitor arriving from a PPC ad was \$2.38, or 76% higher than that of a visitor from an organic listing.

Additionally, paid traffic converted at a 54% higher rate and experienced an average order value 10% above that of traffic from organic listings.

## Engagement Metrics

The results of our engagement metrics mirrored very closely that of our ROI metric findings. Although those metrics don't directly equate to revenue, they are nonetheless still important to marketers. Direct access/bookmark traffic averaged 308 seconds per visit; 41% longer than organic visitors who remained on the site the shortest amount of time of our groups studied. As far as average number of page views per visit, direct access/bookmark traffic tied with other referrers at 6.2 pages, 44% more than the lowest category, paid search ad visitors.

## The Basis of Online Marketing

A significant takeaway from our research is the importance of adequately tracking and analyzing site metrics when formulating marketing strategy and ensuring that measurements align with your strategic goals. Although we saw fairly consistent trends within our sample, there will be variations on an individual level based on your market and competitive environment.

As marketers hone in on defining their online marketing goals, set key performance benchmarks, and aggressively measure, analyze, and test, they will have a clearer understanding of which types of visitors are most cost effective to meeting those goals. Armed with this information they can adjust the marketing investment and web content based on traffic source to maximize the value of each visitor.

Data Summary Table

	% Sales	AOV	% Orders	Bounce Rate	Sales	Orders	Visits	Conv Rate	Value/ Visit	Avg Time On Site	PV's per Visit	Sec/ Page	
<b>TOTALS</b>													
Paid	19.8%	\$ 117.06	17.6%	42.9%	\$15,252,089	130,294	6,416,427	2.0%	\$ 2.38	283	27,597,628	4.3	65.7
Organic	12.3%	\$ 106.64	12.0%	48.5%	\$9,486,403	88,957	7,033,860	1.3%	\$ 1.35	219	34,943,275	5.0	44.2
Direct Access	40.0%	\$ 95.29	43.7%	39.2%	\$30,812,897	323,363	4,383,394	7.4%	\$ 7.03	308	27,002,134	6.2	50.0
Other Referring Sites	27.9%	\$ 109.27	26.6%	42.4%	\$21,496,635	196,725	2,889,592	6.6%	\$ 7.19	282	18,464,875	6.2	45.7
<b>Total</b>	<b>100.0%</b>	<b>\$ 104.21</b>	<b>100.0%</b>	<b>43.9%</b>	<b>\$77,048,024</b>	<b>739,339</b>	<b>20,823,273</b>	<b>3.6%</b>	<b>\$ 3.70</b>	<b>273</b>	<b>108,007,912</b>	<b>5.2</b>	<b>52.7</b>